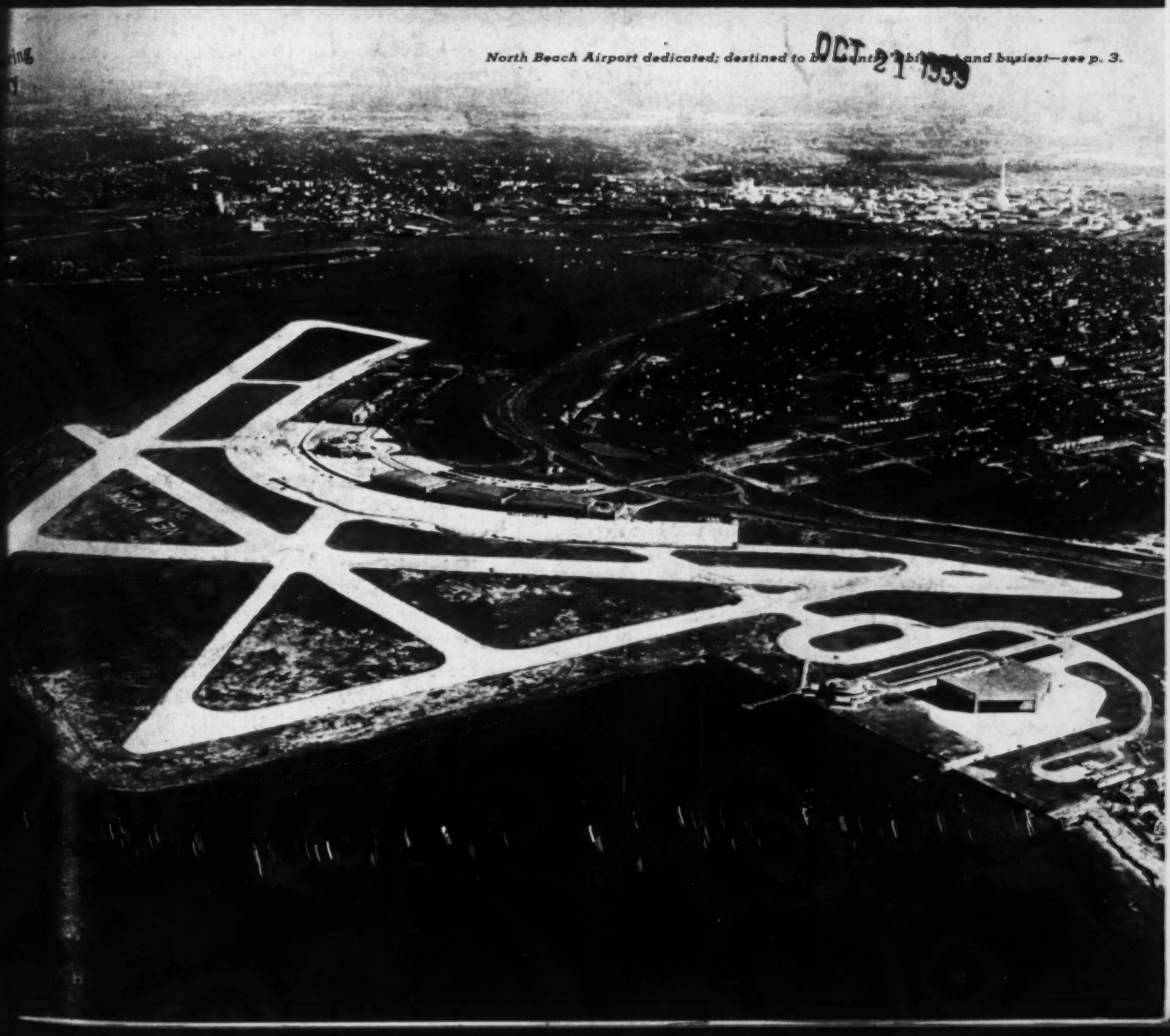
NEWS

OCT 21 1939

North Beach Airport dedicated; destined to be ... and busiest—see p. 3.



THIS MACHINE MAKES JOBS

in the Plant and in th Fiel

Republic Electric Weld Line Pipe was used for this 275-mile line carrying gasoline from St. Louis, Mo. to Chicago, Ill. **REPUBLIC ELECTRIC WELD IS THE IDEAL PIPE FOR GASOLINE LINES.**

● In these days of business unrest—when the machine is decried as a "killer" of men's jobs—and loud-voiced orators preach fantastic and untried theories of economics—it's refreshing to read the facts.

Here's a machine that makes jobs—in the plant and in the field.

To feed it, men must dig and transport iron ore, coal and limestone. Men must smelt the iron—change it into steel—roll it—form it—weld it into pipe—inspect and test—sell and ship. All these operations mean jobs in the plant.

Now, pipe lines are based on sound—and tried—economics. If old pipe-making processes had not been improved, the cost of pipe lines would make them uneconomic, and few or none would be built. But the steel companies of America have spent hundreds of millions of dollars in research and plant improvements during the last decade, to key their products to the needs of industry. How this has affected petroleum transportation is shown by the fact that during the first half of 1939 a total of 41 pipe line projects, 2400 miles of line, and costing $25,000,000, were announced.

Many miles of this pipe has come from this machine. It has made jobs for engineers, ditcher and tractor operators, welders, wrappers, laborers. It has brought jobs to railroad men, truckers and men in factories making tanks, pumps, gauges and welding equipment—all because Republic has three mills of this type and can turn out more than 45 miles of pipe a day—pipe with a weld as safe as the wall—that is ductile enough for field bending—in long lengths up to 54 feet—and easily weldable alongside the trench.

This machine makes jobs—and helps provide America with the lowest cost automotive transportation in the world.

May we send you complete data on Republic Electric Weld Line Pipe?

REPUBLIC STEEL CORPORATION
General Offices: Cleveland, Ohio

BERGER MANUFACTURING DIVISION
NILES STEEL PRODUCTS DIVISION
UNION DRAWN STEEL DIVISION
STEEL AND TUBES, INC.
TRUSCON STEEL COMPANY

REG. U.S. PAT. OFF. REPUBLIC STEEL

REPUBLIC LINE PIPE

Other Republic Steel Products for the Construction Indu

Alloy Steels—ENDURO* Stainless Steels—Toncan* Iro
Carbon Steels—Sheets—Strip—Plates—Pipe—Tubing—
—Conduit—Bolts—Nuts—Rivets—Turnbuckles—Culve
Wire Rope Clips—Wire—Wire Fencing—Fence Po
—Highway Crossings—Standard Steel Buildings.

ENGINEERING NEWS-RECORD

NEWS

Volume 123 OCTOBER 19, 1939 Number 16

NOTEBOOK NEWS

Quick Surveys of Construction Events

▶ Efforts to take city plans out of the class of dust collectors to make them useful guides for advance planning of public works were reported to the public works officials gathered in Pittsburgh last week. At Kalamazoo the scheme has proved successful.

▶ This nation does not need a separate system of military roads, highway officials were told at Richmond last week. Army officers said that our normal highway system will serve if the bottlenecks are eliminated.

▶ The Interstate Sanitation Commission (New York and New Jersey) is fostering legislation whereby the commission will be authorized to finance and build sewage disposal plants for cities that cannot finance them. Both states must act on the proposal.

▶ A belt conveyor system over 9 miles long is proposed by the contractors at Shasta Dam to carry aggregates from the gravel pits to the dam. Delivery rates of 1,000 tons per hour are called for.

▶ Towns in Connecticut are reported to have been profiting from combined grants from the state and the PWA for street work that totals more than the cost of the new work. The Governor has started an investigation to determine the facts.

▶ The call for experienced engineers to work on the new locks for the Panama Canal has drawn so many men from the Denver office of the Bureau of Reclamation as to cause the bureau to attempt to check applications for transfer. Service requirements are to be put ahead of personal preference.

Cover photo by Fairchild Aerial Surveys

Long Range Programming Featured At Public Works Conference

Encouraging results from a practical application of advance planning reported to the American Public Works Association meeting. Regulation of pollution control characterized as impotent in Pennsylvania.

Municipal engineers and administrators got their first glimpse of a new procedure in planning improvements at the annual conference of the American Public Works Association held at Pittsburgh Oct. 9–11. The 300 delegates to the conference heard how Kalamazoo, Mich. undertook the preparation of a six-year program of improvement projects based on financial ability to pay for them and scheduled in accordance with priority of need. Representatives of the National Resources Planning Board, sponsor of the Kalamazoo study, pointed out that this was one of seven demonstration studies now being conducted in various cities of the country to determine the mechanics of long-range programming and budgeting.

The three-day meeting, which concerned itself with municipal problems and practice, was opened by Frank M. Roessing, director of public works, Pittsburgh. In discussing the sewage disposal and the water supply problems of his city, Mr. Roessing characterized Pennsylvania state control of stream pollution as "impotent," and declared that there is little hope of

(*Continued on p.* 10)

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$3,000,000 Project Planned By Pennsylvania Utility

An expenditure of $3,000,000 by the Pennsylvania Power and Light Co. for enlargement and improvement of its Cedar Street plant in Harrisburg is being planned, according to David A. Elias, vice president in charge of the Harrisburg district. Present production of 20,000 kilowatts will be increased to about 40,000 kilowatts.

Pennsylvania to Rush Turnpike Tunnel Work

To expediate work in the tunnels, which form the bottle neck in the construction of the express toll highway from Pittsburgh to Harrisburg, the Pennsylvania Turnpike Commission has created the new post of chief engineer of tunnels and appointed Richard M. Merriman to the new position. The work is scheduled for completion by June 29, 1940, and Merriman, who served as superintendent of construction on the Coachella tunnels of the Colorado River Aqueduct work of the Metropolitan Water District of Southern California, will be in general charge reporting directly to the commission.

W. C. Kline continues as tunnel construction engineer, and Milton Bruner as engineer of tunnel design. Ralph Smillie is consultant on tunnels for the commission.

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$5,800,000 Project Approved for Massillon

The Common Pleas Court at Canton, Ohio, recently approved plans for a $5,800,000 flood control and grade crossing elimination project sponsored by the Massillon Conservancy District for Massillon, Ohio. Approval was granted after the three railroads whose track is involved in the work withdrew their objections to the plan.

The project will be financed with $3,800,000 of federal funds, $500,000 contributed by the Ohio State Highway Department, $200,000 from the railroads and $1,300,000 to be raised by taxation.

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Road Officials Celebrate Anniversary

Record attendance marks 25th annual meeting of the American Association of State Highway Officials. Founding members honored. Leading highway administrators condemn toll roads.

Celebrating its twenty-fifth anniversary, the American Association of State Highway Officials honored the founding members at a breakfast held in Washington, D. C., on Oct. 9 inaugurating its annual convention at Richmond, Va., Oct. 9–13, 1939. About 540 members and guests of the association assembled in Washington and proceeded to Richmond by automobile over the recently completed Skyline Drive along the crest of the Blue Ridge Mountains in Shenandoah National Park in Virginia. At Richmond the official registration was 728 and this enrollment was augmented by half a hundred guests. With all state highway departments represented by delegates for the first time in a decade, the meeting represented nearly an all-time record of attendance in the conventions of this association. Of the eleven founders of the association seven were present at the meeting.

Against toll roads

In opening the discussions of road problems calling for immediate consideration, W. W. Mack (Delaware) president, took a definite stand against toll roads. Stating that the motorist is now taxed sufficiently to provide adequate highways, President Mack asserted that "with monies restored to their proper uses funds would soon be available to replace all proposed toll roads and bridges with adequate free facilities."

"If the toll mania gets a good start," he continued, "and there are evidences of it, the poor man's free highways in this country may be limited to his own lane. Before we demand a national network of super-highways let us be sure we need them and let us be sure in return that in getting them we do not place in the hands of anyone, no matter how benevolent, a club to swing at our heads, or to whom we must come as supplicants for mercy or favors."

One of the dangers besetting the future of highway development, Mack declared, is the insecurity of tenure of office in state highway departments. To the end of attracting and holding "the able and aggressive youth from the engineering schools," he said it will be necessary to offer through civil service some semblance of security and permanency of employment and some guarantee of promotion on merit.

Sounding a note for states' rights, Mack told members of the association they should give most careful consideration before supporting any proposal "which would increase the authority of the federal government in roadbuilding" no matter what form such a proposal might take.

Continuing the attack on diversion and tolls, Frank T. Sheets, past president of the American Association of State Highway Officials and former chief highway engineer of Illinois, asserted that the American motorist is being "short-changed" in at least three ways with each way affecting his pocketbook and his safety. "Either through diversion of highway funds to nonhighway purposes, through expenditure of too much motor revenue on lightly traveled local roads or by reason of the lack of long-range highway planning, which is within reach, the motorist, in many cases, is not getting his money's worth," he said.

E. C. Lawton, assistant commissioner of highways of New York, urged the association to go on record as opposed to "highway tolls of every kind and nature." Tariff barriers on highway transportation at state lines can only lead to "misunderstanding, discontent, anger and economic warfare, if not worse," he said.

Lawton also recommended, "in view of the benefits to our citizens of a continuing tenure of office," that the principle of civil service be extended to highway engineers as widely and quickly "as it is humanly possible to do."

Military road needs

Introduced by John M. Carmody, Public Works Administrator, the address of Thos. H. MacDonald, Commissioner Public Roads Administration, referred pointedly to roads for military uses in future highway planning. Referring to the report on Toll Roads and Free Roads made by the Bureau of Public Roads this year (*ENR*, May 11, 1939, p. 655) MacDonald stated, "It is soundly established that the national defense will be best served by a highway system that provides adequately for the traffic at all times, and special requirements are very limited. The report recommends a system of interregional highways which will connect the population centers of the country, with first attention to be given to the highways within and through the metropolitan districts. The report also recommends the modification of the existing federal-aid system by the replacement of inadequate bridges, correction of bad alignments and similar improvements. In addition to these types of improvement already recommended, the national defense needs would include a limited mileage to serve areas of mobilization as contemplated under the protective mobilization plan."

"From this it will be evident that a highway program developed through cooperation between the state highway departments, the War Department and the Public Roads Administration to serve adequately the national defense, would follow in the main the recommendations already made to the Congress of the program now needed to serve existing and future traffic, and that the chief element of the program would be the establishment of priorities as to the order in which the improvements should be undertaken."

Confirming these statements in general, Lieut. Col. Paul E. Tombaugh, who spoke in the place of Brig. Gen. George V. Strong, assistant chief of staff of the army, presented a plan for the ultimate development of about 60,000 mi. of strategic highways that would meet war department requirements.

The proposed 60,000 mi. of strategic highways would not be one of transcontinental arteries, Col. Tombaugh said, but would be a network of roads that coincide largely with existing routes. He pointed out that good roads connecting important depots, mobilization and industrial centers have more strategic value than transcontinental roads which merely cross the country from coast-to-coast or north to south.

Many invited remarks

Following the trend of this anniversary meeting toward general planning problems and away from technical detail, invited talks were made by members of the Senate and House who came to the meetings from Washington. Reports from the technical committees made brief statements of progress.

Henry F. Cabell, Highway Commissioner, Oregon, was elected president for the coming year.

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Oklahoma Road Program Gets Federal Approval

Oklahoma's $4,354,000 federal aid highway program for 1940 has been approved by the Public Roads Administration. Details of the work are expected to be made known soon.

$40,000,000 Airport Dedicated at New York

North Beach Airport at New York, largest WPA project in the country and one of 1,500 airports upon which WPA has spent $134,000,000 in the last four years, was dedicated on Oct. 15. Costing $40,000,000, North Beach will be the terminal both for the transcontinental air lines and the Atlantic flying boat service. In runways, hangars, passenger accommodations and service facilities, North Beach rivals, if not exceeds, the other great airports of the world, including Tempelhof in Berlin, LeBourget in Paris and Croydon in London.

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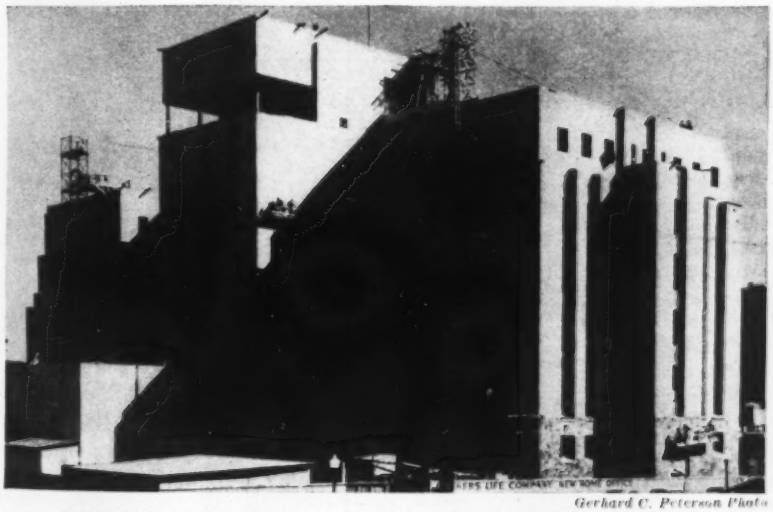
Cement Plant Built In Six Months

Last June a contract for supplying 5,800,000 bbl. of cement for Shasta Dam on California's Central Valley project was awarded to The Permanente Corporation, Oakland, Calif., on a bid price of $1.19 per bbl. Immediately thereafter the corporation, a newly formed organization, started construction of a cement plant in the Santa Cruz mountains some 12 mi. west of San Jose where work has proceeded at such a rapid pace that the plant is now expected to be in operation early in December, only 6 months after work began. The speed is the more notable because of the rough topography at the site which necessitated more than 300,000 cu. yd. of excavation before foundations could be laid.

Two 400-ft. kiln are being installed and the plant capacity is to be 7,000 bbl. per day, using the wet process. With the Cottrell process for dust precipitation it is expected to reclaim 98 per cent of the dust that otherwise would escape through the stack. Included in the installation is a 36-in. belt conveyor system 5,600 ft. long to bring limestone from a quarry whose elevation is about 900 ft. above plant level.

When the plant was visited on September 18 by one of this journal's editorial staff, the 27 silos for cement storage were nearing completion, the belt conveyor was going in, the kilns were being erected and work was well along on thickener and slurry tanks as well as on the numerous buildings incidental to a large manufacturing plant.

Henry J. Kaiser, well known western contractor, is president of The Permanente Corporation which takes its name from Permanente Creek, the stream passing the plant. The brand under which the product will be sold is to be "Santa Clara Portland Cement."



Gerhard C. Peterson Photo

BANKERS LIFE CHANGES THE SKYLINE OF DES MOINES

THIS MAGNIFICENT STRUCTURE, ultra-modern in every detail, will be the new home office of the Bankers Life Company in Des Moines. Faced with granite, limestone, bronze and glass block, and finished on the inside with enamelled steel sheets, it is one of the outstanding buildings of the year in its class. Girders spanning 55 ft. provide large areas unhampered by columns; new ideas in heating and air conditioning mean ideal working conditions for the employees. Tinsley, McBroom & Higgins, Des Moines, designed the structure, and the Des Moines firm of Arthur H. Neumann & Bros., Inc., is building it. This and nine other unusual buildings will be described in the special building section of next week's issue of *ENR*.

Road Fund Inquiry Begun in Connecticut

Governor orders investigation to determine how highway grants are made

Following instructions from Governor Baldwin an investigation has been started in Connecticut to determine how grants are made for highway purposes. Results of the study will determine how the system operates and whether or not there has been a misuse of public funds. Major questions to be answered by the investigation are:

(1) What procedure did the highway department follow in its state-aid allotment plan since federal funds were first made available to Connecticut towns for such a purpose?

(2) Have federal authorities been aware of the department's procedure in cases where both federal and state funds were used in constructing highways within a town?

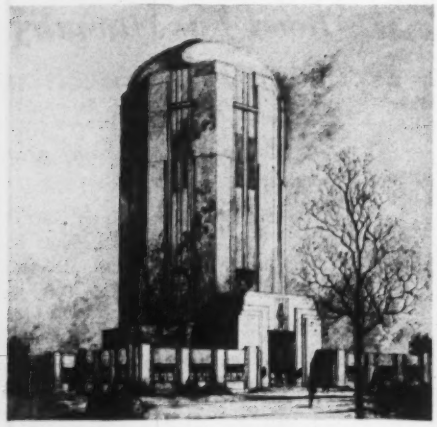
(3) If there have been surplus funds over and above the costs of construction, have these funds been used to purchase rights-of-way, to pay interest charges or to meet other costs incurred by the towns in carrying out their part of the projects, or has the federal policy allowed these surplus funds to be used for purposes other than highway construction?

Connecticut has a state aid law for highway construction under which a town contributes 12½ per cent to 25 per cent, with the state paying the balance. A town is also eligible to receive PWA and WPA grants for road construction. Also the state aid statute provides for an expenditure of $1,000,000 annually among towns deciding to participate in the program, the highway department supervising the projects, awarding the contracts and collecting the tax contributions from the towns.

Highway Commissioner Cox stated that where dual-grants to towns were made, it encouraged the construction of roads not economically justified and further it has burdened the state highway fund with additional maintenance costs and so reduced the amount of money normally used for new construction on through-traffic highways. State aid grants, Cox said, are above board, honest agreements, which may have been in the public interest when the towns were hard up and road construction relieved unemployment.

This program of financing, especially after PWA grants came into the picture, made it possible for towns to get their roads for nothing and even at a profit, he asserted. This he concluded, resulted in too much construction.

Water Tower-Town Hall Completed at Lake, Wis.



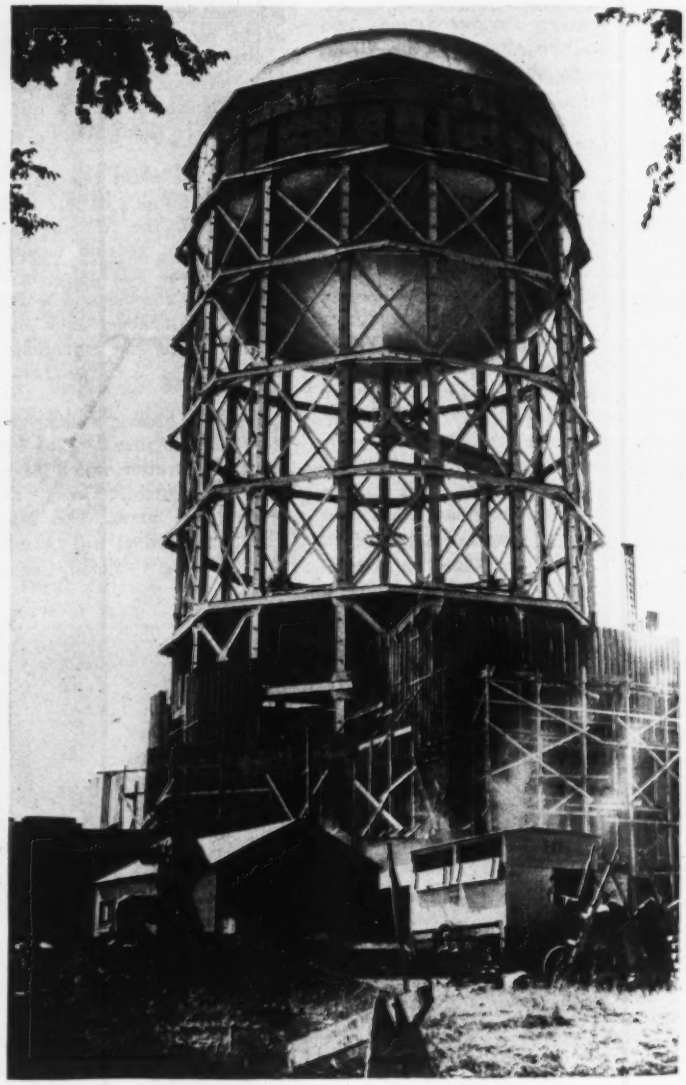
ARCHITECTURAL RENDERING of the finished job. At night the tower is illuminated along the parapet walls, and a red beacon flashes from the top. The 20-acre site of the structure is a municipal park.

THIS FALL Lake's four-year dream of an attractive town hall-water tower is being realized. It was William D. Darby, consulting engineer, who conceived the idea of a municipal double for this suburb of Milwaukee. The town needed both a new water tower and a new town hall, so it was decided to combine the two. In a way, three purposes were served in this building job, for not only were the two projects merged into one, but the esthetic advantage of covering the conventional water tower's bare steelwork was achieved.

A million gallons of water storage is provided by the 65-ft. diam. steel tank, the top of which is 162 ft. above the ground. An octagonal concrete shell encloses the steel frame and half of the tank. At the ground level stands a one-story structure of four quadrants, built integrally with the tower and surrounding it. These quadrants house municipal offices, water department, softening plant, pump room, municipal garage, health office, engineering offices, police department, and jail.

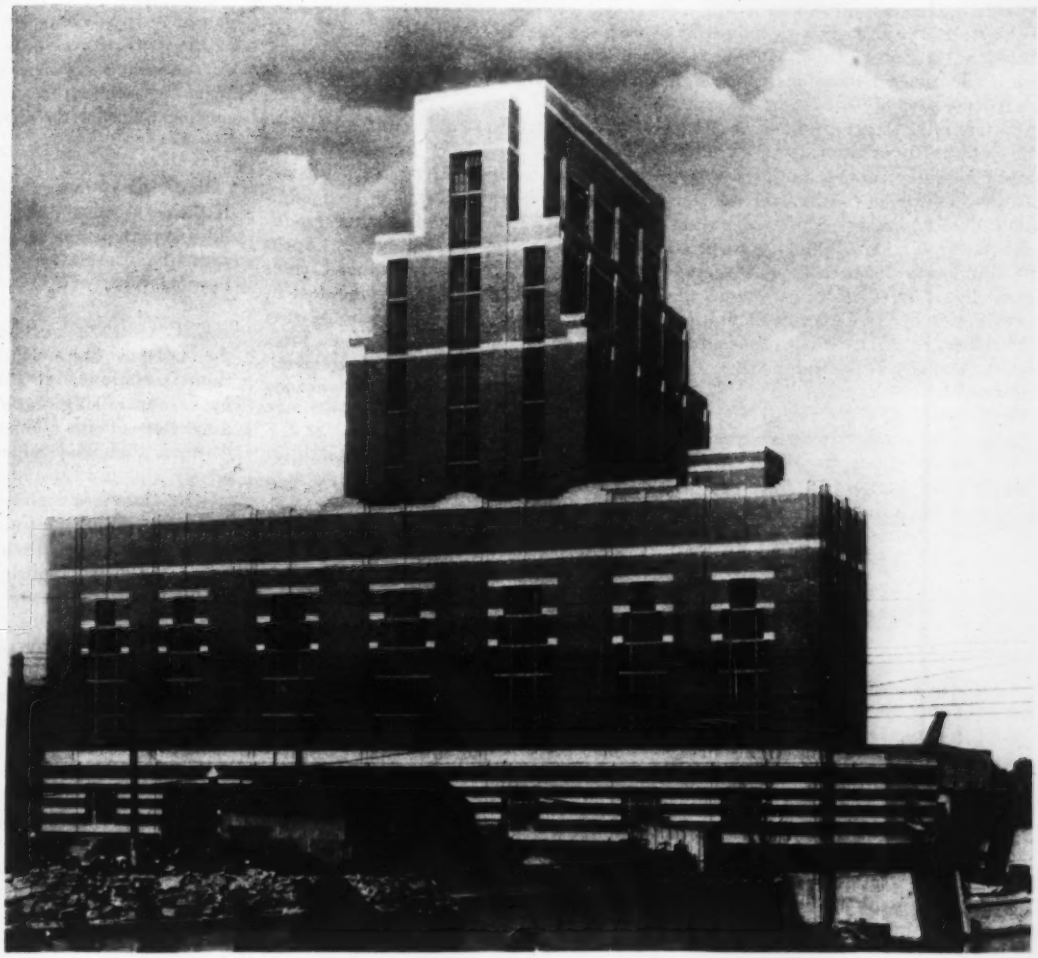
The town hall, seating 300, occupies a room 56 ft. square on the second floor. As more space is needed, upper floors can be built; space has been left for an elevator shaft. Offices are air conditioned, using water from the town's well at 65°. This well is 1,860 ft. deep and supplies 1,000 gpm. In winter the supervisors' room will be heated by vapor system air conditioners. In summer, cold water will run through the same pipes to cool the room.

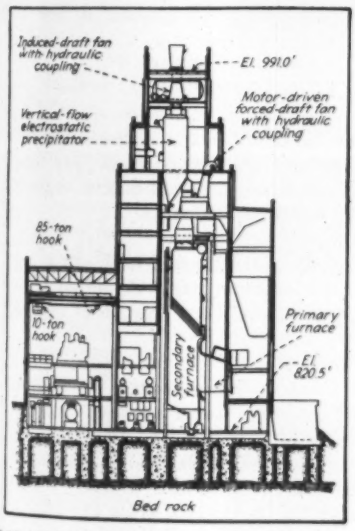
When the water project was started four years ago, the cost was estimated at $1,300,000. The final total is $1,325,000, of which 45 per cent was PWA financed. The rest is being paid for by water department earnings through water revenue bonds. An unusual feature of this project is that no assessments were made against any property.



CONSTRUCTION VIEW of the combined water tank and town hall at Lake, Wis. Octagonal girders connecting tower leg columns are supports for the architectural concrete covering. The diaphragm visible just above the concrete formwork is the ceiling of the town hall, which seats 300.

A Power Plant Comes to Town





CROSS-SECTION of Lansing's invisible-stack power plant. Vertical arrangement of combustion equipment dictated a lofty building and enabled designers to use parapets to conceal the stubby smokestacks used with the forced-draft system.

IN THE HEART of Lansing, Mich., only two blocks from the state's capitol building, stands a new power plant that would be a credit to any civic center. According to an article in the October number of *Power*, two factors enhance the appearance of this station beyond that of most power plants: There are no visible smokestacks, and the exterior brick work is attractively shaded, bottom to top, from black through blue and red to yellow and white-yellow to represent the combustion of coal. Elimination of tall stacks as far as draft is concerned is possible in modern plants through the employment of induced-draft blowers.

Removal of smoke nuisance to surrounding property, then, is the only reason for tall stacks. Lansing's plant is as high as a sixteen-story building, so there is no need for a stack on the nuisance count. Furthermore, a vertical flow electrostatic precipitator is an aid in smoke abatement, as it removes fly ash from the smoke and returns it to the furnace.

The new station goes into operation with two 225,000 lb. per hr., 925-lb. pressure boilers and one main turbo-generator of 25,000 kw. capacity. In addition to the main generator there are two small units, one a generator of 4,000 kw. and one of 2,500 kw. The station also furnishes steam heat for part of downtown Lansing.

Builders of the plant structure encountered ideal foundation conditions, as is indicated in the drawing. Bedrock is nearly flat and quite close to the surface. A novel feature of the design is found in the turbine room. A large part of the temporary wall at one end forms a swinging door, and rails for the 85-ton traveling crane extend out into the yard to enable direct transfer of equipment from cars to the turbine room floor.

The project, owned by the City of Lansing, was financed from an accumulated depreciation reserve and accumulated surplus, without issuance of bonds. Burns and Roe, Inc., New York, was designer and builder, and Bowd-Munson of Lansing were architects.

MEN AND JOBS

ADOLPH F. MEYER, consulting hydraulics engineer of Minneapolis, Minn., has been named chairman of a committee to study the water resources of Minnesota. Items to be covered in the study include: riparian rights in relation to water control projects, water conservation, flood control and reforestation. Other members of the committee are: E. V. WILLARD, chief engineer of the Minnesota department of conservation; RAPHAEL ZON, director of the Lake States Forest Experiment Station, and HIBBERT HILL, superintendent of the St. Anthony Falls Water Power Co., Minneapolis.

ABEL WOLMAN, former regional PWA administrator in Maryland and former chief sanitary engineer of the Maryland State Health Department, has been appointed a member of the Maryland State Water Resources Committee, a position he formerly occupied in an ex officio capacity as sanitary engineer.

CARL G. FLEBUS, resident engineer inspector for the Federal Agency of Public Works, Department of the Interior, Washington, recently begun duty on the Laurel Hill tunnel and other works for the Pennsylvania Turnpike Commission. From 1933 to 1936 Flebus worked as research engineer for the Department of Parks, City of New York, leaving to become director of mines for the Italian government with offices in Rome.

FRED S. CRESSWELL, engineer for the PWA in Washington, D.C., has resigned to accept a position as promotion engineer for the Clay Sewer Pipe Association. He was educated at the University of Cincinnati, where he received a degree in civil engineering in 1932. In 1933 he joined the PWA staff as engineer examiner following employment as junior engineer on the $40,000,000 Union Terminal in Cincinnati. He also worked for two years with the United States Gypsum Co. as district engineer. In his new position he will direct promotion work for the association in Virginia, West Virginia, Maryland, and Washington, D. C.

CAPT. PAUL D. BERRIGAN, a graduate of West Point with the class of 1927, has been named executive assistant to Col. John C. H. Lee, North Pacific division of the U. S. Army Engineers, Portland, Ore. Berrigan served with troops in Hawaii, and for a time carried out CCC duties at Fort Logan, Kan. With his new duties he will also act as administrative officer for the North Pacific division.

THORVALD FILSKOV of South Amboy, N. J., is retiring after nearly 41 years with the Raritan River R.R. Filskov started with the railway as civil engineer in 1898, a short time after graduating from the University of Copenhagen. In 1912 he was named chief engineer and in 1916 superintendent in charge of operations, a position from which he is now retiring. HAROLD FILSKOV, his son and assistant superintendent, has been named to fill the vacancy which he has left.

C. C. HOCKLEY, regional PWA director of Region No. 7, Portland, Ore., has reopened his offices as consulting engineer. The Portland PWA office has been closed with the remaining Portland work to be carried out through the San Francisco offices.

C. CLARK WALES, bridge construction engineer and assistant general manager of the Algoma Steel Corp. of Canada, has been made general manager of the Hamilton Bridge Co., Ltd., Hamilton, Ont.

CARLTON S. PROCTOR, GEORGE L. FREEMAN and WILLIAM H. MUESER, consulting engineers of New York City, have changed the name of their firm from Moran, Proctor & Freeman to Moran, Proctor, Freeman & Mueser. There has been no change in the firm's personnel.

MAJ. GEN. A. G. L. MCNAUGHTON, Canadian engineer and scientist, has been appointed to command the first Canadian division of the Canadian Active Service Force for the present war. McNaughton is a graduate of McGill University and served on the University staff before taking up private engineering work in Montreal, work which was interrupted by his joining the Canadian force during the last World War. Returning to Canada, he continued his military career and was appointed Chief of the General Staff in 1929. Six years later he was appointed president of the National Research Council.

HENRY C. RIEDEL, director of the Moberly, Mo. district PWA activities, has resigned to return to private business. Riedel first joined the PWA in 1935 as director of the Hannibal district and was transferred to Moberly in 1937 to be in charge of 44 counties. H. P. PHELAN, director of operations, is expected to succeed Riedel.

JOSEPH F. BARBA, WPA engineer employed on pest control work sponsored by the Agricultural Experiment Station of Connecticut, is now working in the War Department checking plans and specifications for the Civilian Conservation Corps.

R. C. KAY, former district engineer of Basin, Wyo., for the Wyoming State Highway Department, is now working with the Bureau of Reclamation at Powell, Wyo.

C. C. SLAVENS, resident engineer for the Oregon State Highway Commission, is stationed at John Day, where he is supervising the construction of a section of the John Day Highway between John Day and Prairie City.

RAY DUFFY, a maintenance engineer in District IV of the California Division of Highway at San Francisco, has been appointed district construction engineer of the department.

A. O. WOLFF, assistant district engineer of the Ontario district of the Canadian Pacific Railway, has been named district engineer at St. John, N. B.

H. G. COCHRANE, engineer at Montreal, has been hired by the City of St. John, N. B., temporarily to take full charge of new employment projects now being started in that city.

ROBERT MACDONALD HARDY, assistant professor of civil engineering at the University of Alberta, is now on leave of absence for a year's study at Harvard University.

J. R. CASWELL, division engineer for the London, Ont., division of the Canadian Pacific Railway, has been named acting assistant district engineer for the Ontario district.

C. W. GAMBLE, civil engineer, is now senior assistant engineer at the Royal Canadian Air Force Station at Patricia Bay.

CHAN C. VANDEVENTER, for the past six months superintendent for the WPA in Clay County, Ark., has gone to Paramaribo, British Guiana, where he will be connected with the Aluminum Co. of America as an engineer.

CAPT. ROBERT H. ELLIOTT, assistant to division engineer of the U. S. Army Engineering Corps., North Pacific Division, has been named to succeed MAJOR THERON D. WEAVER as Bonne-

ville district engineer, Bonneville, Ore. Major Weaver recently was ordered to Washington, D. C. (*ENR*, Oct. 5, 1939, p. 442.)

M. MORISSETTE has been named city engineer for Drummondsville, Quebec, succeeding R. MORISETTE, who has resigned.

LIEUT. M. C. S. BROWN, Royal Canadian Engineers of Calgary, Alberta, has been sent to Edmonton, where he is supervising construction work on a group of new Army buildings.

LIEUT. COL. T. B. LARKIN, formerly district engineer at Fort Peck, Mont., has gone to the Canal Zone to be supervising engineer for construction work on the proposed third set of locks and by-pass channels (*ENR*, Sept. 14, p. 330). Col. Larkin will now be located at Balboa Heights, Canal Zone.

C. W. SQUIRE, resident engineer inspector for PWA at Redwood Falls, Minn., has been transferred to Duluth, Minn. J. S. SIVERTS, who was stationed at Fairfax, Minn., has been transferred to Redwood Falls to succeed Squire.

GIBB GILCHRIST, dean of Engineering Department of Texas A. & M. College, has been appointed chairman of a committee to study freight rates for Southwest. W. R. WOOLRICH, dean of engineering at the University of Texas, is another member of the committee, which will study the question of whether or not the Southwest pays much higher freight rates than other sections of the nation.

WILLIAM S. BARRETT, Texas State Highway Department, has taken a leave of absence and is now an instructor in civil engineering at the University of Texas.

GRANT BLACKWOOD, formerly employed on the All-American canal, has moved to Shasta Dam where he will be field engineer.

ROBERT B. GOULD, civil engineering consultant, has opened up offices in Bend, Ore.

CARL E. GUENTHER, engineer and maintenance superintendent of the Salem, Ore., water supply system for the past four years, has been made general manager of the Salem Water Commission.

JOHN D. QUINN, state engineer of Wyoming for the past three years, has been made resident engineer for the PWA at Sheridan, Wyo.

R. P. CUMMINS, Jefferson City, Mo., and superintendent of equipment for the Missouri state highway department, has been elected president of the Missouri Society of Professional Engineers. Other officers are: A. H. Baum, Jr., St. Louis, E. B. Black, Kansas City, and Bruce Williams, Joplin, vice presidents, and Harold Bruegging, Jefferson City, secretary-treasurer.

MEETINGS

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS, fall meeting Atlanta, Ga., Oct. 30-31.

NATIONAL RECLAMATION ASSOCIATION, annual convention, Denver, Colo., November 14-16. Directors meeting Nov. 12-13.

NATIONAL CONSTRUCTION CONFERENCE, Chamber of Commerce of the United States, Washington, D. C., Nov. 16–17.

REGIONAL AND LOCAL

AMERICAN WATER WORKS ASSOCIATION, section meetings: Oct. 20–21; San Francisco, Oct. 25–28; Oshkosh, Wis., Oct. 30–Nov. 1; Utica, N. Y., Nov. 2–3; Charlotte, N. C., Nov. 6–8.

AMERICAN SOCIETY OF CIVIL ENGINEERS, Texas section, fall meeting, Fort Worth, Tex., October 20-21.

ILLINOIS STATE DEPARTMENT OF PUBLIC HEALTH, Water Treatment Plant Operators, annual conference, Springfield, Oct. 25-26.

AMERICAN SOCIETY OF CIVIL ENGINEERS, Mid-South section, Greenville, Miss., November 3-4.

AMERICAN SOCIETY OF REFRIGERATING ENGINEERS, Air Conditioning Conference, Lehigh University, Bethlehem, Pa., Nov. 10–11.

AMERICAN SOCIETY OF CIVIL ENGINEERS, Arizona section, annual fall meeting, Phoenix, Ariz., November 25.

ELECTIONS AND ACTIVITIES

BURGIS COY, city engineer of Fort Collins, Colo., was elected president of the Rocky Mountain section of the American Water Works Association at the thirteenth annual convention in Denver on September 18, 19 and 20. Other new officers are: Ben Howe, Colorado state sanitary engineer, secretary-treasurer, and Frank Hill, water superintendent of Montrose, Colo., member of the Board of Managers.

J. M. JOHNSON, district engineer for the Idaho State Highway Bureau, at Coeur d'Alene, has been named chairman of the North Idaho section of the Idaho Society of Engineers. Allan Janssen of Moscow has been named secretary, and headquarters are to be at Moscow.

THE MISSISSIPPI SOCIETY of Professional Engineers organized at a recent meeting in Jackson with H. A. Krooze, director of sanitary engineering of the state board of health, being elected president. Other officers elected were: Sam Dalton, state highway department, president-elect, and W. E. Ballett, Jr., consulting engineer, Jackson, secretary-treasurer. The executive committee is composed of B. T. Collier, consulting engineer, Clarksdale; T. G. Gladney, state highway department, Jackson; and Lester Winterton, consulting engineer, Pascagoula.

J. L. SHERBURNE, Browning, Mont., has been named president of the Yellowstone-Glacier Bee Line Highway Association. Other officers are: Paul Working of Wilsall and Howard Hayes of Glacier Park, vice-presidents, and L. E. Flint of Livingston, secretary and treasurer.

L. O. WILLIAMS, Cheyenne, Wyo., was elected president of the Rocky Mountain Sewage Works Association at its recent annual convention in Denver.

W. J. NORDLEY, Edgeley, N. D., was elected president of the North Dakota Water and Sewage Works Association at its annual conference held recently at Dickinson, N. D. Other officers elected were: George G. Doorley of Bismarck, vice president; L. C. Clark, Bismarck, secretary-treasurer, and William Yegen, Bismarck, director.

FRANK O. WALLENE, director of the Department of Public Utilities at Cleveland, Ohio, was the principal speaker at the Thirteenth Annual Ohio Conference on sewage treatment at Toledo, Oct. 5-6. J. J. Wirts, superintendent of the Easterly sewage disposal plant in Cleveland, presided.

Research Conferences

OHIO STATE UNIVERSITY, fourth annual industrial research conference, Columbus, Ohio, Nov. 3–4.

Civil Service Examinations

CITY OF BALTIMORE, MD.: Secretary-engineer, $3600 per annum. Apply to City Service Commission, City Hall, before Oct. 27.

CITY OF BUFFALO, N. Y.: Inspector of buildings, $2400 annually. Examinations before Municipal Civil Service Commission, City Hall, Nov. 9.

One of the brothers in Arthur H. Neumann & Bros., Inc., of Des Moines, Ia., is **Harold Neumann**. He is general superintendent in charge of his firm's operations as contractor on the magnificent home office for Bankers Life in Des Moines, to be described in next week's Building Number of *ENR*. This is the job where the original kibitzers grandstand for sidewalk superintendents was built—and this is the man who had the idea for the stand.

Charles H. Spaulding, supervising chemist, Springfield (Ill.) waterworks inspecting one of the gear reduction motors driving paddles in one of three precipitators or upward flow "cloud" settling basins he devised for the new purification plant at Lake Springfield, one of Illinois' largest artificial lakes. Spaulding describes the basins as "funnels placed in dish pans." The funnels here are of steel. In 1933 he won the John M. Goodell prize.

Charles Brakenridge, city engineer of Vancouver, B. C., for some 15 years, recently showed royal visitors a new suspension bridge across the harbor entrance, boulevards through parks that only British Columbia could have, and burned pile stumps where a steamship terminal lately stood. Vancouver made an enviable record in ability to "carry on" during lean years, but recent evidences of improvement are unmistakable.

MEN AT WORK

Chief Engineer **Leslie E. West** (right), who supervises operation of the Joint Meeting sewage disposal plant at Elizabeth, N. J. (*ENR* Oct. 12, 1939, p. 469), seems pleased with **Dr. Willem Rudolfs'** critical comments on a recent tour of inspection. Dr. Rudolfs, who is chief of water and sewage investigations at the New Jersey Agricultural Experiment Station, is also sanitary consultant to the Joint Meeting, which operates the second largest disposal works in the state. The special problem at this place is pumping concentrated sludge 4,400 ft. to barges.

As job manager for the Pacific-General-Columbia Construction Company, **Ralph T. Keenan** (right) recently finished a highly creditable job on foundations for the Tacoma Narrows bridge, where he was assisted by **Theodore M. Kuss,** here shown wearing the regulation life preserver. Kuss, who has had a lot of foundation experience for his years, and went to the Tacoma job after successful completion of the difficult work on Golden Gate bridge piers, recently has been appointed chief engineer of the Pacific Bridge Co.

Narrows Bridge Claim Based on Early Studies

Engineering studies made for a county toll bridge across Tacoma Narrows are reported to be the basis for the $82,000 claim recently filed with the Washington Toll Bridge Authority (*ENR*, Sept. 14, 1939, p. 54). Elbert M. Chandler, who filed the claim, states that he began preliminary work on a private toll-bridge project at the present location nine years ago under a state franchise and later, after creation of the PWA in 1933 and passage of a county toll-bridge law, was employed by Pierce County as engineer for a county toll-bridge project at the Narrows. While the latter project was on the PWA approval list the legislature in 1937 repealed the county toll-bridge law and established the state Toll Bridge Authority. The new legislation included provision recognizing obligations incurred by the county law.

Photo by R. F. Legget

WORK RESUMED ON MONTREAL TERMINAL

WORK ON A LARGE central terminal for the Canadian National Railways in Montreal, abandoned in 1933 after a large part of the work on connecting railway lines had been completed, has been resumed on a modified scale.

Here shown is the reinforced concrete platform structure in the large excavated area which has stood untouched these last six years. Track level will be about 40 ft. below street level, here seen in the foreground as the Dorchester Street bridge, a steel structure carrying one of the main city streets across the excavation which was made in 1933. To the right of the new structure can be seen the tracks of the existing Tunnel Station which will be incorporated in the new terminal. Trains will approach the terminal from either end, from the south (right) on a large reinforced concrete viaduct with plate girder deck bridges across all city streets, and from the north (left) through the existing double track tunnel under Mount Royal, the great hill which rises sharply to the west and dominates the city of Montreal.

Sanitation Body May Build Plants

Legislation would permit Interstate Sanitation Commission to aid financially-distressed cities

Enabling legislation which would permit the Interstate Sanitation Commission to aid in the financing of municipal sewage treatment works is being sponsored in New Jersey and is under consideration for early submission to the New York Legislature. The bills in the two states, which are identical, would permit the Commission to provide plants for municipalities. Funds for this construction would be obtained from bonds issued by the Commission. The New Jersey bill is now being studied in committee.

Under the terms of the legislation, which is designed to accelerate pollution abatement projects in communities unable to finance the work, the bonds would become obligations of the commission; they would be retired from the proceeds of sewer rentals levied by municipalities. This revenue income would be pledged to the Commission, and it would be guaranteed through liens against property owners using the sewers. Liens could be executed by either the municipality or the Commission.

Bayonne supports plan

Renewed interest in this plan to expedite pollution abatement followed several days after a public hearing of the Commission in which Bayonne, N. J., made application to reconstruct a sewer discharging raw sewage into New York harbor waters. The Commission, which operates under the terms of a compact between New York and New Jersey and which is charged with abating pollution in the waters of the metropolitan district, temporarily deferred decision on the application.

Objections to Bayonne's application said that the installation of a 60-in. sewer to replace the existing 54 in. line implied possible future increases of pollutional discharge. Permission to install the sewer was reserved pending a report by Bayonne officials on financing the construction of a treatment plant. Since the hearing the Bayonne City Commission has adopted a resolution urging the New Jersey Legislature to pass the bill which would empower the Interstate Sanitation Commission to finance municipal anti-pollution projects. J. D. Maguire of New York is chairman of the Commission, which has offices at 60 Hudson St. Seth G. Hess is chief engineer.

Works Conference

(Continued from page 1)

effective river clean-up until federal action is taken. He said that the state health department chides municipalities for slowness in ending pollution but gives industrial polluters a free hand in despoiling streams.

The Clarion River, on which tanneries and a paper mill pollute the drinking water of two million people, was cited. "This is being done in brazen violation of the law of the state, and the state does nothing," said Roessing. He also reported that Pennsylvania was the lone holdout from the Ohio Valley compact which seeks interstate cooperation for pollution abatement in this important drainage basin.

Frank W. Herring, executive director of the association, announced in his report that the Spelman Fund of New York had made an appropriation of $40,000 to the general budget of the association for the calendar years 1939 and 1940. The Spelman Fund has also granted an $18,000 appropriation for the research program of the association covering the period 1939–41.

Officers elected for the coming year were: President, John S. Flockhart, principal assistant engineer, Bureau of Street Cleaning, Newark, N. J.; first vice president, Roy L. Phillips, city engineer, Meadville, Pa.; second vice-president, F. T. Paul, city engineer, Minneapolis, Minn.; treasurer, Henry L. Howe, city engineer, Rochester, N. Y.

A complete account of the technical program will be given in next week's issue.

Ross Dam Height Increase Authorized at Seattle

The Seattle, Wash., city council last week authorized E. R. Hoffman, superintendent, City Light Department, to apply to PWA for a supplementary grant to raise Ross dam 30 ft. higher than is specified in the current contract of the General-Shea-Columbia Corp. Cost of the additional work is estimated at $230,000.

The present contract will be completed about the first of the year. If additional funds are secured, the added work will be carried out by General-Shea-Columbia on a unit-price payment basis already agreed upon. For details of the dam see *ENR*, Oct. 12, p. 460. At present the dam is being built to a height of 225 ft.

Butler Airphotos, Inc.

CLEVELAND'S MAIN AVENUE BRIDGE GOES INTO SERVICE

No more important highway artery will be completed in the country this year than the Main Ave. bridge in Cleveland, which was opened to traffic on Oct. 6. Shown in the foreground of the above view, this high-level viaduct extends for 2,520 ft. across the Cuyohoga River valley, and with its 4,500 ft. of approaches, which include extensive traffic-sorting overpasses and subways, cost $7,200,000. Its importance lies in the fact that it is the key structure in a lakefront highway, which includes Lakefront Drive on the east and Bulkley Boulevard on the west, that has the dual function of providing a city bypass for east-west traffic and an express highway entrance to the business district.

The main viaduct consists of a series of anchor spans and cantilever arms with intermediate suspended sections. Span lengths vary from 200 ft. to the 400 ft. required at the river crossing. The roadway, a concrete filled steel grid welded to the floor system, accommodates three lanes of traffic each way. Laid out on curves with a grade in both directions from the river, the bridge presented a difficult design problem.

As with all large modern bridges, the approaches are a vital and expensive part of the project. On the west (right in the above view) numerous overpasses are required among which are two three-span all-welded rigid frames, first welded bridges in the Cleveland area and among the few of their type in the country. In the east approach, additional viaduct is required, and it is distinguished by containing the longest girder span in the United States, 271 ft.

The bridge was built for Cuyohoga County by John O. McWilliams, county engineer, W. E. Blaser, bridge engineer, and Fred L. Plummer, chief designing engineer. Foundation contractors were Lombardo Bros. Construction Co., Cleveland, and A. J. Forschner Construction Co., Chicago. The superstructure was erected by the R. C. Mahon Co., Detroit. Sam W. Emerson Co. and the National Engineering and Contracting Co., both of Cleveland, held the principal approach contracts.

Iowa Court Halts Municipal Utility Work

The city of Woodbine, Iowa, has been restrained from continuing with its contract for construction of a municipal electric light plant by an order of the chief justice of the Iowa supreme court, construction to be halted until the court reaches a decision on an appeal filed in an injunction suit against the town.

Louisville Starts $2,000,000 Grade Elimination Work

Construction of a $2,000,000 grade elimination job at Louisville, Ky., on 14th St., from the Ohio River to Maple Street, has begun, climaxing 15 years' negotiations between the city and the Pennsylvania R. R. The work, estimated to cost $2,000,000, is being carried out as a PWA project with a grant of 30 per cent of the cost.

CONTRACTS AND CAPITAL

ENGINEERING construction awards for the short week due to the Columbus Day holiday, $56,228,000, bring the volume for 1939 to date to $2,446,051,000, 12 per cent above that for the initial 42-week period last year.

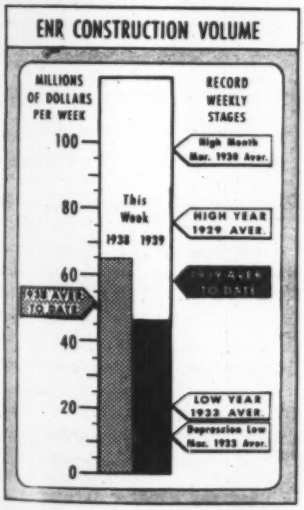
Awards for the current week are 14 per cent below the total for the corresponding 1938 week due to a 23 per cent decline in public construction.

Private construction, however, is 18 per cent above a year ago. This is the sixth consecutive week that private awards have topped their respective 1938 values, and this continued gain has brought private work ahead of the 1938 cumulative total for the first time this year.

In the classified construction groups, sewerage awards reached the second highest volume of the year due to three large project awards, two in California and one in New York. In addition to sewerage, bridges and earthwork and drainage top last week; and bridges, industrial buildings, earthwork and drainage and unclassified construction are above the week last year.

New capital for construction purposes for the week totals $6,247,000, a decrease of 92 per cent from the volume of a year ago when PWA allotments swelled the total. The current week's total is made up of $5,884,000 in state and municipal bonds, $81,000 in corporate security issues, $250,000 in RFC loans for public improvements, and $32,000 in RFC loans to private corporations for construction.

New construction financing for the year to date, $2,229,723,000, is 32 per cent below the $3,291,732,000 reported for the 42-week period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending Oct. 20 1938	Oct. 12 1939	Oct. 19 1939
Federal	$10,712	$9,151	$16,099
State & Municipal	39,491	22,951	22,436
Total public	$50,203	$32,102	$38,535
Total private	15,021	38,541	17,693
TOTALS	$65,224	$70,643	$56,228
Cumulative 1939	(42 weeks)		$2,446,051
1938	(42 weeks)		$2,182,024

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1938 42 Wk.	1939 42 Wk.
NON-FEDERAL	$2,148,087	$1,101,695
Corp. securities	334,731	185,341
State & Mun.	490,431	430,665
R.E.A. loans	54,000	89,445
R.F.C. loans	100,128	4,597
P.W.A. allot.	764,490	.....
U.S.H.A. loans	202,807	201,647
Fed. Aid—Hwys.	201,500	190,000
FEDERAL	$1,143,645	$1,128,028
TOTAL CAPITAL	$3,291,732	$2,229,723

FHA MORTGAGES

	Week Ending Oct. 15 1938	Oct. 7 1939	Oct. 14 1939
Selected for appraisal	$21,117	$22,956	$21,660*
Cumulative 1939	(41 weeks)		$920,779*
1938	(42 weeks)		$803,622

* Subject to revision.

ENR INDEX NUMBERS

		1913	1926
Index Base			
Construction Cost	Oct.	236.86	113.87
Building Cost	Oct.	198.50	107.31
Volume	Sept.	190	83

Long Belt Conveyor Proposed at Shasta

If approved by Reclamation Bureau, system would replace delivery by rail

A belt conveyor system 49,000 ft. long has been proposed for transporting sand and gravel from the North Kutras deposits at Redding to Shasta Dam. If the plan is approved by the U. S. Bureau of Reclamation it will replace delivery by rail heretofore contemplated. The change is favored by the contractors on the dam, Pacific Constructors, Inc., and contractors for the aggregates, Columbia Construction Co., Inc.

According to advice from Washington, D. C., when Henry J. Kaiser, head of the Columbia Construction Co., first offered to transport the aggregate by belt line at a cost lower than the freight rate, the railroad, which has a line available to service the project, offered rate concessions which make the economy of the conveyor somewhat doubtful. However, if the idea appears interesting from the bureau's point of view, it is reported that bids will be asked giving rail, belt and any other transportation devices an equal chance.

Unusual belt system

If a belt conveyor system is used, between 21 and 25 flights would be used (dependent upon final location); belt width would be 36 in. and the speed would be such as to make delivery at the rate of 1,000 tons per hr. Materials to be delivered include 7,600,000 tons of gravel (4 sizes) and 2,800,000 tons of sand. The belt would deliver into the concrete boot already R. R. tracks at Coram, just below the constructed under the Southern Pacific dam site.

Concrete pouring at Shasta Dam is scheduled to start March 1, 1940. Time required for constructing a belt conveyor system might delay the schedule somewhat.

Detailed studies of the proposed system have been made by the Goodyear Tire & Rubber Co., Akron, Ohio.

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Florida Utility to Spend $3,000,000 on Expansion

The Florida Power and Light Co. is spending $3,000,000 in doubling the capacity of its plant at Dania in South Florida. The utility serves 196 communities and last winter's operations made full use of the plant's present capacities, peak loads averaging around 116,400 kw.

OBITUARY

EARL IRVINE, 52, civil engineer of Detroit, died in that city on Oct. 6. Irvine, who early in life was employed by the Canadian Pacific Ry. as an engineer, served overseas during the past World War and returned to the employ of the Canadian Pacific upon getting back to Canada.

JOHN GROSE, for many years an engineer on the staff of the Toronto Transportation Commission, died in Toronto on Oct. 6 at the age of 72.

THOMAS M. SHEEHAN, chief engineer for the Memphis, Tenn., water department, died in Memphis Oct. 9, at the age of 71.

JAMES M. SCHULTZ, retired civil engineer of Buffalo, N. Y., died Oct. 9 in Miami, Fla., where he had lived for the last two years.

JOHNSTON LIVINGSTON, engineer who graduated from Columbia University in 1898, died Oct. 10 in New York City at the age of 62.

C. H. ATKINSON, president and general manager of the C. H. Atkinson Paving Co., died recently in Brookings, S. D. He was a graduate of Mount Union College, Alliance, Ohio.

JESSE M. NEILL, 41, highway engineer employed by the Jefferson County Road Department, Birmingham, Ala., died in Birmingham, Oct. 12.

CHARLES H. NESBITT, 67, civil and mining engineer, died in Birmingham, Ala., recently.

ADOLF L. BJORKSTAM, 79, retired civil engineer of Seattle, Wash., died in that city Oct. 9.

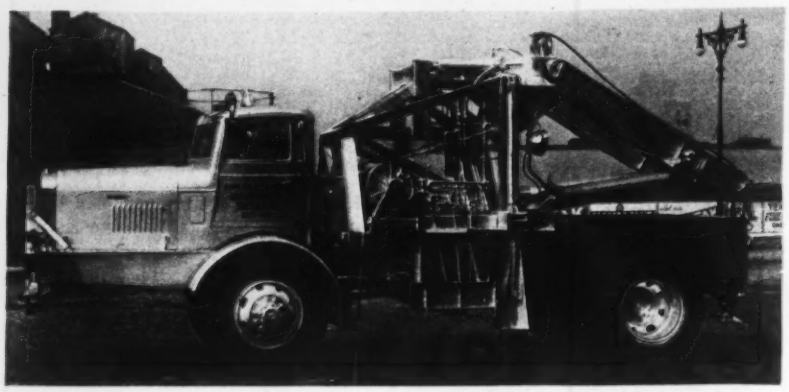
HARRY R. PEARSEN, 53, former chief right-of-way engineer for TVA, died in Memphis, Tenn., recently.

GEORGE R. MARTIN, building contractor, died recently in Salisbury, N. C.

DONALD C. WELTY, 51, builder who had been construction superintendent on a Standard Oil Co. project in Arabia in 1930, died Oct. 5 in Little Rock, Ark.

FRANK A. KEEN, assistant superintendent of bridges and buildings for the New York, New Haven & Hartford R. R., died Oct. 12 in New Rochelle, N. Y., at the age of 69.

Other engineers, builders and contractors who have died recently include: CHRISTOPHER J. GERATY, 72, in Phoenix, Ariz.; JAMES M. LEFLAR, 58, building contractor, in Memphis, Tenn.; SAMUEL J. BROWN, 53, with the Virginia Bridge Co. for 30 years, who committed suicide Oct. 3 in Memphis, Tenn.; FRED WINLAND, 59, building contractor, in East Liverpool, Ohio; JAMES N. ROBERTS, 69, building contractor of Kansas City, Kans.; FRED W. BROWN, 78, builder and contractor of Tucson, Ariz. and GUST E. CARLSON, 77, retired building contractor of Rockford, Ill.



WRECKER FOR NEW YORK CITY SANITATION DEPARTMENT

THIS WRECKER, the first of ten ordered for New York City by William F. Carey, commissioner of sanitation, resembles in action a human robot. It is equipped with two complete adjustable booms which may be operated either individually or simultaneously, a decided advantage over the rigid overhead boom which has heretofore been employed with most heavy duty commercial wreckers. The boom topping and swing is controlled and operated solely by hydraulic means instead of a winch and the load lines are operated by a 20-ton winch, all controls being located at the rear of the cab thus requiring only one man to direct this operation. The unit was designed by Loren G. Kurtz, director of motor equipment in the department.

Reclamation Staff Depletion Feared

Panama Canal administration has been hiring employees from Denver Reclamation Bureau.

Fearful that its Denver staff of 600 professional and sub-professional employees might be depleted by the expanding needs of the Panama Canal, the Bureau of Reclamation recently requested the Panama Canal administration not to offer jobs to bureau engineers. Last Spring, when the canal administration first felt the need of new men, a personnel officer visited Denver soliciting applications for transfer. Since the canal positions carry 25 per cent extra payment for foreign service, a large number of applications were received and about 20 transfers were made. A few months later, when it appeared that the canal might require as many as 200 engineers, Commissioner Page wrote the Governor of the Canal Zone asking that he "look to other sources for the personnel required"—a request with which the Governor complied.

Protests against this policy were sent to Secretary of the Interior Ickes by the Denver chapter of the Federation of Architects, Engineers, Chemists and Technicians, CIO. The Secretary replied that the department did not want to stand in the way of anyone's advancement, but that when the interests of an individual and the government service conflicted he must resolve the conflict in favor of the government.

Questioned by an *Engineering News-Record* reporter, Commissioner Page denied that the bureau's policy in any way constitutes an embargo on transfers. Rather, he said, it is an embargo on recruiting of transfers. He considers such a limitation necessary in order to protect the bureau's large construction program.

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Steel Contract Let For Tiffany Building

Trusses of 85-ft. span will support the seven upper floors of the new Tiffancy Building in New York, for which steel contract has just been awarded to Bethlehem Steel Co. Plans call for an unobstructed main showroom floor 85 x 100 ft. in size, with a ceiling height of 24 ft. Three trusses, carrying two interior upper floor columns each, will make the unobstructed area possible. These trusses are to be 18 ft. in depth, the lower chord being located in the second floor and the top chord being in the third floor.

CONSTRUCTION REPORTS

Compiled by BUSINESS NEWS DEPARTMENT
Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, MANAGER
(Daily service also available—Write for details)

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

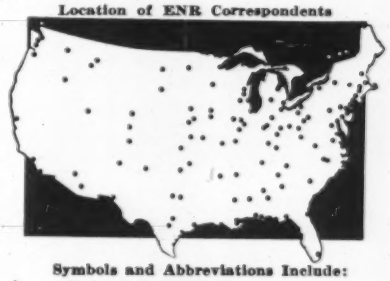
Classes of Construction
(Named in order of Listing)

Water Supply	Unclassified
Sewers, Waste Disposal	Materials, Equipment
Bridges, Grade Cross'gs	Public Buildings
Streets & Roads	Commercial Buildings
Earthwork, Waterways	Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads);
BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);
LOW BIDDERS ($500,000 projects and over);
CONTRACTS AWARDED

Location of ENR Correspondents



Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	McGraw-Hill Construction Daily

WATER SUPPLY

PROPOSED WORK

Calif., Montrose—Crescenta Mutual Water Co., 2012 Montrose Ave., 2 m.g. rein.-con. reservoir. Over $15,000. H. E. Carter, 2012 Montrose Ave., engr.

Kan., Council Grove—Dam on creek, 4 mi. gravity flow line. $210,000. $72,000 bond issue approved. S. A. Sulentic, N. E. Bldg., Topeka, engr.

Kan., Wilson—Made survey new well and exten. mains. $20,000. Paulette & Wilson, 1006 Kansas Ave., Topeka, engrs.

Mich., Gladwin—WW, 75,000 gal. elevated, steel standpipe, turbine pump and centrifugal pump, mains, meters, recording apparatus. $19,750. Shoecraft, Drury & McNamee, Savings Bank Bldg., Ann Arbor, engrs.

Neb., Chadron—Water purification plant, $60,000. Black & Veatch, 4706 Bway., Kansas City, Mo., engr. CD 11/29.

†N. J., Dover—Con. Q. M. Picatinny Arsenal, 6 in. steel water supply line at Picatinny Arsenal, $17,548. E. A. Devlin, foot of 5 Ave., Paterson, WPA and owner's engr.

N. Y., Albany—Steel watertower at Loudonville Reservoir. Over $15,000. Owner engineer, engr.

N. Y., Coxsackie—Bd. Water Comrs., dam, reservoir pipe line. $90,000. Morrell Vrooman, Inc., 21 N. Main St., Gloversville, engrs.

N. Y., Highland—Bd. Fire Comrs., imprv. water supply. Over $150,000. Morrell, Vrooman, Inc., 21 N. Main St., Gloversville,, engrs.

N. Y., Shortsville—Village Water Bd., surveys imprv. water supply. Probably over $15,000. Wm. S. Lozier, Inc., 10 Gibson St., Rochester, engrs.

N. C., Lilesville—$20,000 bond election Nov. 14, water sys., $17,500 bonds for sewerage sys. J. T. Wall, mayor.

O., Sardinia—$17,000 bond election Nov. 7, water sys. and treatment plant. J. W. Campbell, mayor.

Okla., Grove—Bond election soon, water main extens. and additional fire hydrants, $20,000. B. S. Myers, 710 W. 31 St., Oklahoma City, engr.

Pa., Morrisdale — Supervs. Morris Twp., bond election in November, c.i. water supply main from Philipsburg to Morrisdale. Over $15,000.

Tex., Port Arthur—H. G. Johnson, mayor, 100,000 gal. tank and 75 ft. steel tower, fire mains, fire station plant. $45,000. A. M. Hackney, Port Arthur, engr.

Va., Boone Mill—WW sys. $25,000. J. B. Mc Crary, 22 Marietta St., Atlanta, Ga., engr.

Va., Grundy City—WW sys. $35,000. J. B. Mc Crary, 22 Marietta St., Atlanta, Ga., engrs.

B. C., Vancouver—Union Estates, Ltd., 7 Carroll St., domestic water supply sys. on Bowen Island, New Westminster Dist. $25,000. Private plans.

BIDS ASKED

Bids Asked October 24

Ga., Cave Springs—State Dpt. P. Welfare, c/o B. Deen, Dr., Hurt Bldg., Atlanta, intake and pump sta., concrete storage reservoir, 10,100 ft. water mains, etc., at Georgia School for Deaf. Robert & Co., Bons Allen Bldg., Atlanta, engrs.

†Ga., Fort Screven—Con. Q. M., 150,000 gal. elevated steel tank, piping and accessories. Project 9.

Ia., Glenwood—State Bd. Control, D. R. McCreery, chn., Des Moines, one 300,000 gal. elevated tank at State Hospital. $20,000. CD 9/13—ENR 9/21.

Ia., Independence—State Bd. Control, D. R. McCreery, chn., Des Moines, one 300,000 gal. elevated water tank. $20,000. CD 9/19—ENR 9/21.

Que., Montreal—Executive Com., City Hall, constructing 4 pipe water intake at Ville La Salle. Extended date. C. J. Des Baillets, Verdun, engr. CD 9/27—ENR 10/5.

Bids Asked October 25

Ia., Prairie City—C. Rovaalt clk., drilling 8 in. well, furnishing, installing 8 in. w. i. pipe.

†R. I., Sakonnet Point—U. S. Eng., Industrial Trust Bldg., Providence, drilling, developing wells for water sys. at U. S. Military Reservation.

Bids Asked October 26

Mass., Boston—At office Metropolitan Dist. Water Supply Comn., 20 Somerset St., Contr. 89, mortar lining for 2 existing 90 in. steel pipe siphons, one about 3,600 ft. long at Sudbury River Crossing, and other about 1,125 ft. long at Happy Hollow Crossing of Weston Aqueduct, in Framingham and Wayland. Approx. $60,000. PWA. K. R. Kennison, ch. engr. of comn. and R. N. Molt, secy., both c/o owner; adv. ENR 10/19.

Bids Asked October 27

Wash., Sunnyside—Concrete reservoir, exten. water sys., drilling 1 or 2 wells. $100,000. G. D. Hall, Larson Bldg., Yakima, engr. CD 10/16.

Bids Asked October 30

O., Oak Harbor—Village, 1 story 18x28 ft. booster pump. station, 10,000 ft. watermains, etc., Contr. 4. $25,000. Tentative date. Champe, Finkbeiner & Assoc., 725 Nicholas Bldg., Toledo, engrs. CD 9/11—ENR 9/14.

Pa., Rouseville—G. H. Bush, boro secy., water pressure system, pump and alternating device for water supply line and filter sys. Hill & Hill, 24 E. Main St., North East, engrs.

Bids Asked

Tex., Hamlin—J. L. Culberson, mayor, WW sys. imprvs. $23,000. French & Pruitt, 221 Citizens Natl. Bank Bldg., Abilene, engrs.

LOW BIDDERS

★**Ill., Chicago**—O. E. Hewitt, comr. P. Wks., Oct. 11, east substructure of South Dist. filtration plant, in vicinity 79 St. and Lake Michigan, from Michael Pontarelli & Son, 4248 N. Kilpatrick St., $3,616,650. CD 9/26—ENR 9/28.

CONTRACTS AWARDED

Ga., Milledgeville — Water filtration plant, water supply sys., settling basin, laboratory and control apparatus. **WPA. $86,000.**

Ill., Cutler—WW and distr. sys., deep well, pump, tank on tower, distr. mains, **WPA $33,000.** B. Davis, Chester, engr.

La., Morgan City—Mayor and Councilmen, one complete two cycle diesel engine, 1,050 hp. generating unit, fdns. complete with switchboards, to Fairbanks Morse Co., 1000 St. Charles St., New Orleans, **$71,500.** Bids 10/2, awarded 10/8. CD 9/20.

La., Pineville — Mayor and Bd. Aldermen, drilling, developing gravel water well complete with electrically driven deep well centrifugal pump, to William H. Smith, Alexandria, **$11,328.** Bids 8/15, awarded 10/4. CD 7/25—ENR 7/27.

Md., Baltimore—Southeastern low service transmission main, to John Matricciani, 229 S. Exeter St., **$84,676.** Bids 10/4. CD 9/27.

Minn., Minneapolis—A. P. Erickson, aud. Hennepin Co., constructing Well 7 at Grays Bay, Lake Minnetonka, to McCarthy Well Co., 670 Eustis St., St. Paul. **$5,530.** Bids 9/25. CD 9/20.

Mo., Ellington—WW imprvs., pump house, storage reservoir, etc. and fire dpt. building, to Buren & Douglas Constr. Co., 904 W. Hovey St., Springfield, **$31,098.** Bids 10/5. Rejected bids 10/5, fire truck, fire hose, nozzles and fire alarm. CD 9/25—ENR 9/28.

N. Y., New Rochelle—New Rochelle Water Co., 29 Cottage Pl., W. D. Freer, pres., reinforcing watermains, Huguenot Ave., own forces. **$25,000.**

Okla., Shawnee—Removing, relaying existing 18 in. c.i. pipe line from Acme Corner to Shawnee and relaying same within city limits of Shawnee. **WPA. $23,050.** W. H. Sindt, Old Court House, Oklahoma City, engr.

R. I., Warren—Bristol County Water Co., M. Carns, gen. mgr., 750 gal. concrete sedimentation basin, to Callan Constr. Co., Bristol. Est. over **$15,000.** Private plans.

S. C., Columbia—State Finance Com. of South Carolina, material for construction water supply sys. at Womens Penitentiary, Industrial School for Girls and Negro Boys Reformatory, to Lynchburg Fdry. Co., Lynchburg, Va., **$23,818.** Est. $30,000. Bids 10/3. CD 9/22—ENR 9/28.

Tex., Ennis—Municipal rein.-con. and earth lake for domestic water supply. **WPA. $78,502.**

Wyo., Laramie—Union Pacific R.R. Co., B. H. Prater, ch. engr., 15 and Dodge Sts., Omaha, Neb., water treatment plant at shops, own forces. **$65,000.**

Wyo., Rawlins—Union Pacific R. R. Co., B. H. Prater, ch. engr., 15 and Dodge Sts., Omaha, Neb., 60,000 gal. per hr. water treatment plant, **$65,000,** own forces under supervision owner's engineers.

Que., St. Johns—E. Gaudette, municipality engr., City Hall, water-main, renewals and extens., day labor. **$20,000.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Conn., New Britian—P. Wks. Dpt., City Hall, sanitary sewers, Dover Rd., Lincoln St. section, sewage pump. sta. $25,000. G. Molleur, City Hall, engr. CD 12/23—ENR 12/29.

Ia., Grand Junction—Sewage plant. $175,000. Currie Eng. Co., Webster City, engrs.

Mo., Ironton—Sewage disposal plant complete with auxiliary equip., piping, sanitary sewers, etc. Over $25,000. W. H. Kendall, Potosi, engr.

Mo., Republic—Election indefinitely postponed construction sewage disposal plant. $90,000. WPA. J. Robinett, Landers Bldg., Springfield, engr. CD 7/17—ENR 7/20.

†N. J., Lyons—Veterans Administration, Arlington Bldg., Wash., D. C., storm and sanitary sewers, electric services, watermains, excavating and grading Veterans Hospital grounds. $27,024. WPA. J. H. Weitzen, Smith and Hobart Sts., Perth Amboy, WPA and owner's engr.

N. J., Totowa—8 in. vitr. tile sanitary sewer and house connections, Hobart, Whithelmina and Barnet Aves. WPA. $34,055. E. A. Devlin, foot 5 Ave., Paterson, WPA and owner's engr.

O., Brecksville—$26,250 bond election Nov. 7, sewage disposal plant. Over $30,000. B. W. Harris, mayor.

O., Sidney—Sewage disposal plant and incinerator plant, $130,000. R. Horn, dir. Pub. Serv. CD 10/2—ENR 10/5.

O., Washington Courthouse—Sewage disposal plant imprvs., installing secondary treatment unit. $115,000. Applied for WPA funds. F. G. Browne, Marion Bldg., Marion, engr.

★**Que., Montreal**—Executive Com., City Hall tributary collector sewer Meilleur and Atlantic Sts. $1,500,000. Estimates approved by Council. J. B. Lamarche, City Hall, engr.

Sewers, etc. (Continued)

Que., Valleyfield—C. Codebecq, municipality clk., exten. sewer various streets. $50,000. Obtained grant from Provincial Government.

BIDS ASKED

Bids Asked October 23

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, reconstructing, repairing sewer in Foster Ave., furnishing, del. rented equip. for above work.

R. I., Providence—Bd. Contr. & Supply, J. T. Collins, chn. and mayor, City Hall, furnishing, installing screens and grinders in sewage pump sta., Ernest St., Contr. C. J. E. Meade, city engr.

Bids Asked October 24

Ill., Rock Island—Contr. 15, lateral sewers, W. J. Gallagher, city engr.

Bids Asked October 27

†**Ill., Savanna**—Con. Q.M., Savanna Ordnance Depot. Proving Ground, sanitary sewer and/or water distr. sys.; adv. ENR 10/19.

Bids Asked October 31

Ind., Gary—Bd. Sanitary Comrs., R. E. Rowley, chn., City Hall, Div. A, Contr. 5, (Rhode Island Relief Sewers) 32 Ave. regulator, 25 St. outfall sewer and 7 Ave. branch sewer. PWA. C. W. Cole, 515 Bway., Gary, and 220 W. La Salle St., South Bend, consult. engrs. CD 6/27—ENR 6/29.

Bids Asked November 3

D. C., Wash.—Dist. Comrs., District Bldg., Piney Branch relief sewer, Sect. 2, Part 2, part of Rock Creek Diversion sewers; adv. ENR 10/19. PWA. $250,000.

Bids Asked November 6

S. D., Sturgis—Electric power plant for sewage disposal plant. Extended date. Chenoweth, Fraser & Forette, Rapid City, engrs. CD 10/10—ENR 10/12.

LOW BIDDERS

★**Minn., Duluth**—Comr. P. Wks., Oct. 10, general contract constructing Sect. M sewage disposal plant, from A. Hedenberg & Co., 4623 E. Superior St., $525,742***Sect. N, sewage equip., sedimentation and digestion tank, Bid N-1 from Dorr Co., 221 N. LaSalle St., Chicago, Ill., $11,330***Bid N-A1 from Jeffrey Mfg. Co., Columbus, O., $15,070*** Bid N-24 from Pacific Flush Tank Co., 4241 Ravenswood Ave., Chicago, Ill., $15,990*** Sect. O, vacuum filters from Eimco Corp., 333 N. Michigan Ave., Chicago, Ill., $28,650 ***Sect. P, incinerator equip., from Nichols Eng. & Rearch Co., 60 Wal. Tower, New York City, $61,950***Sect. Q, plumbing, heating, ventilating, from Martin Wold Co., 7 E. 1 St., Duluth, $47,079***Sect. R, electric equip., R-1, from Commonwealth Electric Co., 417 Bway., St. Paul, $74,990***R-2, from Nylund Electric Co., 5721 Grand Ave., Duluth, $71,035. PWA. Bids 10/10. CD 9/19—ENR 9/21.

★**Neb., Omaha**—City, Oct. 3, sewage treatment plant, from Peter Kiewit Sons Co., Omaha Natl. Bank Bldg., with WPA participation $659,354, without WPA participation $738,589. CD 10/13.

CONTRACTS AWARDED

★**Calif., Long Beach**—G. E. Baker, engr., City Hall, vitr. clay sanitary seworts Santiago Ave., et al, about **$150,000;** storm water drainage program (18 separate projects), **$3,365,056. WPA.**

D. C., Wash.—Dist. Comrs., District Bldg., rein.-con. diversion sewer Piney Branch Relief Sewer, Sect. 2, Part 1, to Frank Carozza, 7 West 25 St., Baltimore, Md. **$133,650.** Bids 9/28, awarded 10/10. CD 9/15—ENR 9/21.

★**Ill., Belleville**—Sewage treatment plant complete with auxiliary equip., piping and appurtenances, to Hoeffken Bros., 222 W. B St., Belleville, and G. Tillman, Centralia, (associates on job), **$479,683.** Est. $582,000. Bids 10/2. CD 9/25—ENR 9/28.

Ill., Rock Island—Contr. 14, relief sewers between 38 and 45 Sts., to Dan Christensen Constr. Co., Cedar Rapids, Ia., **$73,811;** laboratory and equip. at sewage treatment plant, to E. H. Sheldon Co., Muskegon, Mich. **$4,082.** Bids 10/9, awarded 10/10. CD 9/26—ENR 9/28.

Ia., Cherokee—State, Des Moines, sewage disposal plant at state hospital, to Holtze Constr. Co., 2121 E. 4 St., Sioux City. **$50,140.** Est. $60,000. Bids 10/6, awarded 10/9. CD 9/29.

Minn., Minneapolis—F. S. Gram, city purch. agt., drilling 25 drill holes about 1,500 ft., in all, for Sewer Dpt., to Keys Well Drilling Co., 413 N. Lexington Parkway, St. Paul, at $13.88 per ft. Bids 9/25. CD 9/20.

Mo., Kansas City—Sewer northwest branch of Townfork Sewer, **WPA. $25,000.**

Mo., St. Louis—Bd. Pub. Serv., City Hall, relief sewer in N. Market St. between 18 St. and Mississippi River, to Martin & Reilly, 7227 Lindell N. Blvd., University City (St. Louis P. O.) **$87,893.** Est. $100,000. Bids 10/10. CD 9/18—ENR 9/21.

N. J., Morristown—Sanitary sewers and pump station, 4 Ward, **WPA. $63,139.** CD 5/2—ENR 5/11.

★**N. Y., Buffalo**—7,472 lin. ft. storm drain in Forest Ave. **WPA. $531,825.**

N. Y., Syracuse—Additional sewers and retaining wall Eastwood sect. **WPA.** Over **$40,000.** N. F. Pitts, City Hall, engr.

N. Y., West Seneca—Rehabilitation sewerage treatment plants in Sanitary Sewer Dists. 5 and 6. **WPA. $25,000.**

N. C., North Charleston—North Charleston Pub. Serv. Dist., sewerage sys., **WPA. $40,000.** J. McCrady, 7 State St., Charleston, engr.

O., Cuyahoga Falls—Sewage plant, to Steinle Wolfe Co., 1515 Croghan St., Fremont. **$148,441.** Bids 9/15. CD 9/7.

Pa., Wilson—Contr. 5, sewerage sys., to Christ Donatelli, Allentown, **$37,725.** Bids 10/9. CD 9/19—ENR 9/21.

Tex., El Paso—M. A. Harlan, mayor, sanitary sewers and new manholes throughout city **WPA. $51,700.**

Tex., Nacogdoches—H. G. Stallings, city mgr., storm sewers and catch basins, concrete bridges, sidewalks and 3 mi. city wide street paving. **WPA. $211,500.** Mr. McElroy, city engr.

Tex., Penelope—Bd. Educ., septic tank, sewerage sys., landscaping school grounds. **WPA. $69,800.**

Tex., Wichita Falls—Wichita Co., c/o Judge, eliminating insanitary devices in rural and suburban areas and substation sanitary devices, day labor. **$33,639.**

Utah, Payson—Sewerage sys. and outfall line for entire town. **WPA. $250,000.** W. Bates, Payson, engr.

B. C., Wilson—Sewerage imprvs., Div. 2, to J. B. McCrary Co., Marietta St. Bldg., Atlanta, Ga., **$117,987.** Bids 10/6. CD 10/3.

Que., St. Johns—E. Gaudette, municipality engr., City Hall, sewers various streets, day labor. **$50,000.**

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

★**Connecticut**—State, Hartford Bridge Comn., Hartford, retained Coverdale & Colpitts, consult. engrs., 120 Wall St., New York City, to make traffic study and potential toll revenue for granite, steel, rein-con. toll bridge over Connecticut River between East Hartford and Hartford. $5,000,000. CD 5/9—ENR 5/12.

Iowa—State Hy. Comn., Ames, 4 rein.-con. box culverts, S. H. 101 north of Vinton, FA 263 A, Benton Co.

Iowa—State Hy. Comn., Ames, 6 rein.-con. box culverts, co. Trunk Rd. J from co. trunk Rd. T east to U. S. 65, via Bradford, FAS 131 A; 17 concrete box culverts and extens., 25 x 22 ft. timber bridge. Country Trunk Roads B and M from Sheffield east to Butler Co. line, FAS 132 A, all foregoing Franklin Co.

Iowa—State Hy. Comn., Ames, 292x24 ft. continuous I-beam bridge and 1 rein.-con. stock pass, S. H. 101 north of Vinton, FA 58, Benton Co. F. R. White, ch. engr.

N. Y., East Rochester—New York Central R. R. Co., 466 Lexington Ave., New York, J. W. Pfau, engr., changes in tracks, telephone, telegraph, signal sys., etc. in connection with grade crossing elimination, Washington St. Over $25,000.

N. Y., Pelham-Portchester—Westchester Co. Parks Comn., Court House, White Plains, G. S. Haight, Parks Supt., bridges in connection with proposed Pelham-Portchester Parkway. Over $25,000.

N. Y., Phoenix—State Dpt. P. Wks., Weighlock Bldg., Syracuse, 358 ft. steel bridge, 24 ft. wide over Oneida River, near here. Over $100,000. W. Robinson, dist. engr.

N. Y., Schoharie—Bd. Supervs. Schoharie Co., steel, concrete bridge, Keyerkill-Krum Falls Rd. Probably over $25,000. L. J. Wright, supt. Hys.

Ohio—State Hy. Dpt., Columbus, 2 span 26 ft. continuous steel beam bridge with concrete deck and timber substructure over Taylor Run and 3 span continuous steel bridge concrete deck and timber substructure on Sects J. and Sycamore, S. H. 644, Wyandot Co., $82,218; continuous steel beam bridge on concrete, steel piling substructures over Venlsonham Creek Sect. B, S. H. 708, Laurance Co. $135,000; 2 concrete beam bridges 36 ft. span Sects. A and B, S. H. 95, Medina and Summit Counties. Over $25,000.

Okla., Carter—State Hy. Dpt., Oklahoma City, 280 ft. I-beam bridge, concrete piers, on Hy. 41, Beckham Co. $30,000. V. T. Moon, Capitol, Oklahoma City, engr.

Pennsylvania—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, plans elimination of Bessemer & Lake Erie Grade Crossing, Greenville; highway bridge over railroad tracks in West Middlesex; steel, concrete bridge on Route 718, near Five Points, Mercer Co. Total est. over $150,000. S. W. Jackson, State Hy. Dpt., Franklin, dist. engr.

Pennsylvania—State Hy. Dpt., I. L. Hughes, secy., elimination grade crossing, steel concrete hy. overpass over railroad, Route 15, near Powys. Over $25,000, maturity 1940. J. S. Ritchey, dist. engr.

Pa., Oil City—Comrs. Venango Co., Courthouse, Franklin, E. Z. Smiley, ch. clk., revised plans and bids soon, 180 ft. steel arch bridge over Oil Creek, Center St. $75,000. Former contract rescinded. CD 10/4—ENR 10/12, under CA.

Que., Ste Rose—Provincial Government, Quebec City, and Canadian Pacific R. R., J. M. R. Fairbairn, ch. engr., Windsor Sta., Montreal, subway under tracks on Route 11, 1 mi. south of Ste Rose. $40,000.

Wyo., Rock Springs—$75,000 bond election Nov. 7, (citys share) constructing viaducts and subways, for City and State Hy. Comm.

BIDS ASKED

Bids Asked October 25

†**Montana**—Public Roads Administration, 342 Postoffice Bldg., Missoula, grading, surfacing 3.568 mi. Y. G. B. Line Hy. Lewis and Clark Natl. Forest, Cascade Co.

Bids Asked October 27

Minnesota—State Hy. Dpt., St. Paul, Bridge 2735-10, 172 ft. beam span underpass Great Northern Ry. tracks also Bridge 5885, 149 ft. concrete deck girder under Old Trunk Hy. 52, both in Robbinsdale, Hennepin Co.

Bids Asked October 31

Ill., Joliet—Dpt. P. Wks. & Bldgs., Div. Waterways, 201 W. Monroe St., Springfield, cleaning, painting superstructures Brandon Rd., McDonough St. and Jackson St. bridges, over Illinois Waterway. C. Jenkins, ch. engr.; adv. ENR 10/19.

Virginia—State Dpt. Hys., Richmond, 212 ft. bridge, approaches over Roanoke Creek on Route 39, Charlotte Co.; 2 bridges, approaches over Fine and Bernard Creeks, Route 44, Powhatan Co.; 127 ft. bridge, approaches over Sturgeon Creek, Route 140, Brunswick Co.

Bids Asked November 1

Calif., Los Angeles—2 bridges, Marmion Way over Arroyo Seco Parkway and channel, $70,000. PWA. Bids Oct. 4 rejected. L. Aldrich, City Hall, engr. CD 9/19—ENR 9/21.

Louisiana—State Hy. Comn., F. W. Raggio, chn., Baton Rouge, Charenton drainage and navigation canal, bridge, approaches, 280 ft. rein.-con. deck girder, near Charenton, State Project 6008, St. Marys Co.

Bids Asked November 10

New Jersey—E. D. Sterner, comr., State Hy. Dpt., Trenton, bridge across Passaic River on Route 25, in Newark and Kearny, Essex and Hudson Counties; adv. ENR 10/19.

Bids Asked

Ont., Bridgeside—G. S. Walker, engr., Court House, Perth, 20 ft. clear span steel beam bridge with concrete deck 18 ft. wide between wheel guards for Lanark Co. Substructure and grading approaches in another contract.

CONTRACTS AWARDED

Alabama—State Hy. Dpt., Montgomery, steel superstructure for Tallassee Bridge, to Pittsburgh-Des Moines Steel Co., 101 Tuttle St., Des Moines, Ia., **$228,700.** CD 7/11—ENR 7/13, under CA.

Calif., Fresno—E. Dussenberry, clk. Fresno Co., bridge over main by-pass of Fresno Slough, Placer Ave., to J. Jurkovich, 3530 Balch St., **$24,150.** Bids 10/6. CD 9/26—ENR 9/28.

Calif., Los Angeles—Rein.-con. bridge, over Cahuenga Blvd., Mulholland Hy., to J. Higgins, 2469 Grand Ave., Huntington Park. Est. over **$25,000.** Bids 9/20. CD 9/7.

Georgia—State Hy. Bd., Atlanta, rein.-con. steel bridge, Randolph Co., to Wainer Constr. Co., Valdosta, **$13,786;** rein.-con. bridge, Chatham Co., to Espy Paving & Constr. Co., 2821 Bull St., Savannah, **$41,659.** Bids 10/6. CD 10/4.

Ill., Rockford—Bridge over Kent Creek, to Ray Mann Constr. Co., Rockford. **$25,500.**

Indiana—State Hy. Comn., T. A. Dicus, chn., Indianapolis, bridge over Big Creek, Wells Co. and over Blue Creek, Adams Co., to Kruzick Bros., Winamac, **$31,363** and **$16,883** respectively***est. $38,797 and $20,492 respectively***bridges over Hunley Short Creek, also over Hunley Creek, Dubois Co., to R. P. Olinger, Huntingburg, **$39,153***est. $50,085*** arch bridge over creek south of Attica, Fountain Co., to L. D. Hegg, Covington, **$20,590***** est. $27,432, girder bridge over Wetherald Ditch, also steel beam bridge over Potato Creek, girder exten. over Little Potato Creek, Boone and Clinton Counties, to Wilbur C. Scheirer, Frankfort, **$33,893** est. $40,943*** bridge over St. Marys River overflow, Adams Co., to Bergen & Bergen, Franklin, **$37,959,** est. $50,621. Grand total, $179,841. Bids 10/3, awarded 10/6. CD 9/12—ENR 9/14.

Iowa—State Hy. Comn., Ames, continuous skew I-beam bridge, Butler Co., to F. O. Montgomery Co., Humboldt, **$16,378;** I-beam approach spans, Keokuk Co., to Ottumwa Bridge & Constr. Co., Box 75, Ottumwa, **$22,519.** Bids 10/3. CD 9/22—ENR 9/28.

Michigan—Mackinac Straits Bridge Auth., Old Tower Bldg., Lansing, drilling 10 test holes in Straits of Mackinac on site of proposed Straits bridge, to Sprague & Henwood, 221 W. Olive St., Scranton, Pa., unit basis, est. **$25,000.** Bids 10/5. CD 9/19—ENR 9/21.